

**SUBJECT: SEED PRODUCTION PROGRAMMER (SEPR)  
CLASS XII**

**SEMESTER III**

**THEORY  
FULL MARKS:30**

**[MCQ Type (1 Mark) Question]**

<b>UNIT</b>	<b>Topic</b>	<b>No of periods assigned</b>	<b>Marks</b>
1	Seed and agriculture	10	7
2	Seed structure and development	8	5
3	Seed quality	8	5
4	Seed sampling	5	4
5	Seed testing	14	9
	<b>Total</b>	<b>45</b>	<b>30</b>

**DETAILED SYLLABUS**

<b>UNIT</b>	<b>Topic / Sub Topic</b>	<b>No of periods assigned</b>
1	<b>Seed and agriculture:</b> Concept on seed and grain, its importance and scope, different kinds of seed used in crop cultivation, classification of seed in multiplication program, quality seed, seed production principles and post-harvest handling, seed deterioration, seed village concept, seed quality index, seed producing zone	10
2	<b>Seed structure and development:</b> Definition of seed ,component of seed, seed development procedure, types of pollination and pollinating agents, types of fruits, seed maturity	8
3	<b>Seed quality:</b> Quality concept, quality parameters of seed, seed certification, certification objective, agencies, procedures, field inspections, seed inspection, power of seed inspector	8
4	<b>Seed sampling:</b> Types of sample, procedures for sampling in field and laboratory, seed sampling instruments, concept on Seed Testing Laboratory	5
5	<b>Seed testing :</b> Importance of seed testing, kinds of test –purity test,germinationtest,viabilitytest,seedhealthtest,seedmoisturetest and seed vigour test	14
	<b>Total</b>	<b>45</b>

**SEED PRODUCTION PROGRAMMER (SEPR)****CLASS XII  
SEMESTER IV****THEORY****FULL MARKS: 30****[SAQ (2 Marks) and LAQ Type (4 Marks) Question]**

<b>UNIT</b>	<b>Topic</b>	<b>No of periods assigned</b>	<b>Marks</b>
1	Seed storage	10	4
2	Seed processing	10	4
3	Seed production (agricultural crops)	18	10
4	Seed production (horticultural crops)	18	10
5	Seed production (vegetatively propagated crops)	7	2
	<b>Total</b>	<b>63</b>	<b>30</b>

**DETAILED SYLLABUS**

<b>UNIT</b>	<b>Topic / Sub Topic</b>	<b>No of periods assigned</b>
1	<b>Seed storage:</b> Seed types on storability, factors affecting seed in storage, upgrading of seed storability in pre and post-harvest stage of seed, seed borne diseases, storage pests, maintenance of plant materials through advance techniques, idea on different storing devices, and structure of a Godown	10
2	<b>Seed processing:</b> Concept, steps of seed processing, seed drying, drying methods and management, seed grading, seed treatment, packaging of seed.	10
3	<b>Seed production (agricultural crops):</b> Rice, Wheat, Maize, Black Gram, Green Gram, Sesame, Mustard, Cotton, Jute	18
4	<b>Seed production (horticultural crops):</b> Tomato, Brinjal, Chilli, Bhindi, Bottle Gourd, Ridge Gourd, Cabbage, Cauliflower, Cucumber	18
5	<b>Seed production (vegetatively propagated crops):</b> Onion, Garlic, Turmeric, Potato	7
	<b>Total</b>	<b>63</b>

**PRACTICAL AND PROJECT**  
**CLASS XII**

**FULL MARKS: 50 (Practical) + 20 (Project)**

**NO. OF PERIODS ASSIGNED: 144 (120 for Practical+24 for Project)**

**DETAILED SYLLABUS**

Sl. No.	Topics	No. of periods
<b>SEMESTER III</b>		
1	Seed structure and Pollination mechanism of different kinds of crops (at least 3 crops)	2+2+2=6
2	Identification of seed sampling equipment and sampling procedure	7
3	Visit to seed testing laboratory and identification of seed testing equipment	7
4	Basic idea on important seed tests (4 important crops)	
	a) Seed moisture test	2+2+2=6
	b) Physical purity test	2+2+2=6
	c) Simple genetic purity test	2+2+2=6
	d) Germination test	10
5	Visit to a seed processing plant	6
6	Concept on seed storing and simple storing techniques	2+2+2=6
<b>TOTAL</b>		<b>60</b>
<b>SEMESTER IV</b>		
1	Prepare a sample plot for seed production of three (3) important crops (at least) considering the following steps:	
	a) Area/land/crop/variety selection, ideal for quality seed production,	2+2+2=6
	b) Maintenance of seed standard (quality seed, their source etc.),	2+2+2=6
	c) Recommended agronomic management with emphasis on seed quality enrichment	10+10+10=30
	d) Maintenance of isolation distance (various modes), rouging, removal of off-types, etc.	3+3+3=9
	e) Techniques applied for labeling, harvesting, etc.	1+1+1=3
	f) Drying, threshing, grading, proper packaging, etc.	2+2+2=6
<b>Total</b>		<b>60</b>
2	<b>PROJECT</b>	<b>24</b>
<b>Total</b>		<b>84</b>
<b>Class XII Total</b>		<b>144</b>

**PROJECT (20 marks: Two Projects, 10 marks each)**

<b>Sl. No.</b>	<b>Project</b>	<b>Details</b>	<b>Marks</b>
1	Project I (12 periods)	Prepare a seed testing report on Paddy/Wheat/Maize/Bajra/ Barley/Millet/Jowar for seed standard of certified seed	10
2	Project II (12 periods)	Prepare a working sample from a seed-lot for seed testing	10
3	Project III (12 periods)	Prepare a seed testing report on Green gram/Black gram/Lentil/ Pigeon pea/Pea/Soybean/Chick pea for seed standard of certified seed	10
4	Project IV (12 periods)	Prepare seed vigour testing report through performance test on Paddy/Wheat/Maize/ Green gram/Black gram/Lentil/ Mustard/ Sesame/Safflower	10